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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/646,726 | 08/25/2003 | Shuji Yoneyama | P23761 | 1183 |
| 7055 | 7590 | 09/15/2004 | EXAMINER | |
| GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191 | | | | NGUYEN, THONG Q |
| ART UNIT | | PAPER NUMBER | | |
| 2872 | | | | |

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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| | | |
|------------------------------|----------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/646,726 | YONEYAMA, SHUJI |
| | Examiner Thong Q Nguyen | Art Unit 2872 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-6 is/are rejected.
- 7) Claim(s) 7-9 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 August 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/25/03 and 3/31/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

(02)
9/10/04

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings contain sixteen sheets of figures 1-18 were received on 8/25/2003. These drawings are approved by the Examiner.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
4. The disclosure is objected to because of the following informalities: a) Pages 6-7, the brief description of fig. 6 is unclear with regard to fig. 6. In particular, figure 6 does not show the relationship between the reticle forming surface of a reference plate and an eyepiece. Should --the astigmatism of-- be added after "and" (page 6, line 25) to make the description of the figure with the figure. See also the brief description of figure 4 provided in same page, on lines 17-19; b) The similar objection as set forth in element a) above is also raised to the brief description of figure 10; c) Page 9: lines 2 and 4, the terms "glass plate 10" should be changed to --glass plate 11-- (see same page on lines 2 and 7 and fig. 1); d) Pages 9, 12, 14, 18, 19, 21, 23 and 25, applicant should provide a definition or description for the term "F" used in the table listed in each of the mentioned

pages. There are still some grammatical and idiomatic errors in the specification.

Applicant should carefully proofread the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Ekstrand (U.S. Patent No. 3,942,901).

Ekstrand discloses an optical device having a tube for supporting a lens means having a concave surface serving as a semitransparent mirror, a light source system for directing light beam to the semitransparent mirror which is arranged to produce an image of the light source such as the image of the light source is used as a sighting mark for an observer. In the system as described in columns 5-6 and shown in figure 7, the system comprises a lens means having two lens elements (4a, 4b) bonded to each other to form a combined lens unit having a zero-refracting power, the bonded surface defined by the two lens elements (4a, 4b) has a curved configuration and acts as a surface supporting a sighting mark for an observer. Ekstrand also discloses that the end of the tube supports a glass disk (13) wherein the glass disk may be replaced by an ocular. See column 4, lines 8-14. While Ekstrand does not clearly state that the reticle forming surface

of the lens means is curved in accordance with a field curvature of the ocular; however, it is known that a ocular lens is an optical element having curved surfaces and the it is clear that the curved surface defined by the lens means which carries a sighting mark as provided by Ekstrand is related to the field of curvature of the ocular lens used with the system in a general kind of relationship because there is not any specific limitation(s) related to the field of curvature of the ocular being claimed/recited in the present claims.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ekstrand in view of Yamashita (Japanese reference No. 6-109985).

The optical device having a lens means defined by two lens elements bonded to each other wherein the bonded surface has a curved configuration and supports a sighting mark as provided by Ekstrand as provided in columns 5-6 and shown in figure 7 does not disclose that the bonded surface supporting a sighting mark has a frame for a field of view. However, the use of an optical element whose one surface is used to support a reticle or a sighting mark which is surrounded by a frame for defining a field of view is known to one skilled in the art as can be seen in the optical device provided by Yamashita. In particular, in columns 1-3

and figs. 2 and 12, Yamashita discloses an optical device supporting a lens element (5) wherein one surface of the lens element has a crosshair surrounded by a frame for a field of view. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the lens means having a curved bonded surface supporting a sighting mark as provided by Ekstrand by making a frame surrounding the sighting mark as suggested by Yamashita for the purpose of providing a field of view for the system.

9. Claims 1-2, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as described in the present application in pages 17-18 in view of Baron (U.S. Patent No. 5,867,250).

feel at work

The prior art as described in pages 17-18 of the present application discloses a combination of an ocular lens system and a reticle. Based on the data related to the optical characteristics of the lens elements constituting the ocular lens system and the reticle, it is clearly that the reticle is formed by two transparent elements having a bonded surface in which a reticle is formed. The only feature missing from the device of the prior art is that it does not disclose that the bonded surface of the element supporting the reticle has a curved configuration in accordance with a field of curvature of the ocular lens system.

However, the use of an optical element having two transparent members or lens elements sandwiched a reticle wherein the reticle has a curved surface is known to one skilled in the art as can be seen in the device provided by Baron. In particular, in columns 15-16 and fig. 13, Baron discloses an optical element (620)

acting as a reticle. The reticle (620) comprises two lens elements (624, 626) and a metallic coating (630) sandwiched between the interior surfaces of the lens elements. The use of adhesive for bonding the coating to the interior surfaces of the lens elements is provided as can be seen in column 15, lines 58+ to column 16, lines 10. As a result, the reticle (620) has two outer planar surface and a curved bonded surface supporting a coating carrying pattern. It is also noted that the use of the reticle (620) is more effective in the process of providing a depth of field in comparison to the use of a reticle having two planner outer surfaces and a planar bonded surface as described in column 15 and shown in fig. 12. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the optical element carrying a reticle of the prior art described in the present specification in pages 17-18 by making the bonded surface carrying the reticle as a curved bonded surface carrying the reticle as suggested by Baron for the purpose of improving the optical performance, a depth of field, of the reticle in the system.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over prior art as described in the present application in pages 17-18 in view of Baron as applied to claim 1 above, and further in view of Yamashita (Japanese reference No. 6-109985).
The combined product provided by the prior art and baron as described above does not disclose that the bonded surface supporting a reticle has a frame for a field of view. However, the use of an optical element whose one surface is used to support a reticle or a sighting mark which is surrounded by a frame for defining

a field of view is known to one skilled in the art as can be seen in the optical device provided by Yamashita. In particular, in columns 1-3 and figs. 2 and 12, Yamashita discloses an optical device supporting a lens element (5) wherein one surface of the lens element has a crosshair surrounded by a frame for a field of view. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the lens means having a curved bonded surface supporting a sighting mark as provided by the prior art and Baron by making a frame surrounding the sighting mark as suggested by Yamashita for the purpose of providing a field of view for the system.

Allowable Subject Matter

11. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
12. The following is a statement of reasons for the indication of allowable subject matter:

The device as recited in the present claim 7 is patentable with respect to the cited art by the limitations related to the structure of reference plate used in the viewing device having an eyepiece. It is noted that the use of a reticle in the form of two lens elements bonded together and the bonded surface supports a reticle is known to one skilled in the art; however, the art does not disclose the use of a reticle plate having two transparent elements wherein one element has a curved reticle forming surface and the other transparent element has a frame forming

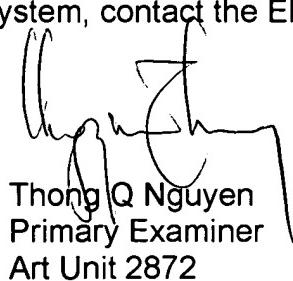
surface on which a frame for a field of view is formed and the reticle forming surface and the frame forming surface are placed so as to face each other and are different in their radius of curvatures.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q Nguyen
Primary Examiner
Art Unit 2872